Title (en)

Method and apparatus for overvoltage protection and reverse motor speed control for motor drive power loss events

Title (de)

Verfahren und Vorrichtung für Überspannungsschutz und Rückwärts-Motordrehzahlsteuerung für Motorantriebsleistungsverlustereignisse

Title (fr)

Procédé et appareil de protection contre les surtensions et commande inverse de vitesse de moteur pour événements de perte de puissance d'entraînement de moteur

Publication

**EP 2816712 A1 20141224 (EN)**

Application

**EP 14167749 A 20140509**

Priority

US 201313915647 A 20130612

Abstract (en)

Apparatus and methods are presented for mitigating overvoltages and limiting reverse motor speeds for motor drive power loss events, in which a first power dissipation circuit (40) is enabled at the motor drive output to limit reverse rotation of a driven motor load (6) when motor drive power is lost, and a second power dissipation circuit (16,18) in a DC bus circuit (14) is used to mitigate over voltages following restoration of motor drive power.

IPC 8 full level

**H02M 1/32** (2007.01); **H02M 5/458** (2006.01); **H02M 7/5387** (2007.01); **H02P 3/22** (2006.01)

CPC (source: EP US)

**H02M 1/32** (2013.01 - EP US); **H02M 7/5387** (2013.01 - EP US); **H02P 3/22** (2013.01 - EP US); **H02P 29/024** (2013.01 - US); **H02P 29/0241** (2016.02 - EP US); **H02P 29/025** (2013.01 - EP US); H02M 5/458 (2013.01 - EP US)

Citation (applicant)

US 7479756 B2 20090120 - KASUNICH JOHN M [US], et al

Citation (search report)
- [X] US 2009224705 A1 20090910 - JOBARD THIERRY [FR], et al
- [I] WO 2011129705 A1 20111020 - SMARTMOTOR AS [NO], et al
- [A] EP 1936796 A1 20080625 - FUJI ELEC FA COMPONENTS & SYS [JP]

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EP4164113A1; EP3337033A1; US12018875B2

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**EP 2816712 A1 20141224**; **EP 2816712 B1 20220629**; BR 102014013711 A2 20160719; BR 102014013711 B1 20210406; CN 104242785 A 20141224; CN 104242785 B 20170704; US 2014368143 A1 20141218; US 9041327 B2 20150526

DOCDB simple family (application)

**EP 14167749 A 20140509**; BR 102014013711 A 20140606; CN 201410260736 A 20140612; US 201313915647 A 20130612